

**SOUTHERN CALIFORNIA EDUCATION  
RESEARCH CENTER FOR  
OCCUPATIONAL SAFETY AND  
HEALTH**

**SUMMARY ANNUAL REPORT**

**July 1, 2009 – June 30, 2010**

**NIOSH Training Grant  
No. T42 OH 008412  
SUBMITTED BY:  
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**SEPTEMBER 2010**

**Southern California ERC**  
**Summary Annual Center Report for 2009-2010**

**A. Center Administration:** The Region IX NIOSH ERC for Southern California ERC (SCERC) is composed of three academic programs: Industrial Hygiene (IH), and Occupational and Environmental Health Nursing (OEH) and Occupational Medicine (OM). IH and OEH are located at University of California, Los Angeles (UCLA). The Occupational Medicine program is located at University of California Irvine (UCI). The remaining programs are a Continuing Education program (CE), an Outreach (OR) program, Center Administration (CA), a Hazardous Substances Academic Training program (HSAT), a Pilot/Small Project Research Training program (PSP) and a Targeted Research Training program (TRT). Center administration is located at UCLA.

1. Coordination and Integration of ERC Programs: Currently the SCERC is directed by Dr. John R. Froines, who is serving as Acting Director. The Associate Director is Dr. Dean Baker of UC Irvine and the ERC Administrator is Ms. DT Evans. The search to replace Former Director, Dr. William Hinds who retired effective July 1, 2009 is nearly complete. This search yielded a strong finalist whose anticipated start date is January 1, 2011, contingent upon the successful completion of the vetting process by UCLA's Academic Personnel Office. Both Drs. Froines and Hinds will continue their involvement with the ERC, serving as advisors, teachers and researcher. Six professionals constitute our executive committee. Stakeholder views have been sought to guide the ERC toward new or improved educational programs for both professional training and continuing education. The primary productivity assessment is the number of graduates and the number of publications for each academic program. For CE/O it is the number of courses offered and the number of attendees.

2. Strategic Planning: During this past year the SCERC continued to embrace and implement the ERC mission and Vision statement, adopted in March 2004.

**Core Purpose and Mission:** The mission of the SCERC is to protect the health of workers through education, research, and service by educating professionals and scientists in the fields of occupational medicine, industrial hygiene, and occupational health nursing through academic programs and continuing education; conducting research in occupational and environmental health; and providing outreach and resources to educational and professional organizations.

**Vision:** The vision of the Southern California ERC is to be recognized as a leader in education and research in occupational and environmental health.

Trainees toured an industrial facility. This annual plant visit continues to be a popular activity with students. This year it was Metropolitan Transportation Authority (MTA) Repair Facility. We continue to organize the annual interdisciplinary dinner meeting at the UCLA faculty Center with an outside speaker, this past year, expanded to presentations by two pilot project recipients, inclusion that engendered enthusiasm.

**B. Center Programs:** **Industrial Hygiene:** The Fall 2009 roster of funded students featured 6 new Master's degree trainees, four returning Master's students, three returning doctoral students. One more doctoral student is not funded by the ERC. One of the returning IH Master's students transferred to the Ph.D. program in Winter 2010. Students were able to participate in internships: at the Tesoro oil refinery performing laboratory work on a taste and odor panel also conducting laboratory and field work on sampling and analysis of air samples; with an Industrial Hygiene consulting company; with the Kaiser Permanente Occupational Medicine Clinic; and assisting the UCLA Environment, Health, and Safety Department.

**Accomplishments:**

- One doctoral student and one faculty member were notified of the acceptance of their abstracts for the Denver American Industrial Hygiene Conference and Exposition for May 23-27.
- The UCLA IH Program created its own electronic brochure, with its first Alumni Newsletter issued in February 2010 with another in the Spring 2010, scheduled for quarterly publication thereafter.
- All three students who graduated were employed in OS&H positions (and two of them also being HSAT-trained)
- Professor Que Hee was awarded a NIOSH CDC grant titled *Whole Glove Permeation/Penetration of Organic Liquids with a Dextrous Robot Hand*, 09/01/09-08/31/12, \$1,060,110.
- UCLA IH Program members issued 5 publications.

**Occupational Medicine-Irvine:** The UCI Occupational Medicine Residency program has maintained full accreditation by the ACGME. During this year, three residents were supported by NIOSH and three were

supported by the US Navy. The program graduated three residents. One returned to the US Navy, another joined the Epidemic Intelligence Service of the US CDC and the third one became a medical officer for NIOSH. All are working full time in occupational medicine. The program accepted two residents for the next training period and will train five residents. For more than a decade, the program has had an excellent passing rate on the APBM board certification in occupational medicine resulting in program graduates accounting for a substantial proportion of the board certified occupational medicine specialists in Southern California.

The UCI Occupational Medicine program also provides one-month rotations to Internal Medicine and Family Medicine residents at UCI and to occupational medicine residents from other programs who do 1-2 month rotations with us. The program also provides a CME approved Grand Rounds on occupational medicine as part of the ERC outreach mission.

The faculty provided regional, national and international leadership in the field. Dr. Dean Baker served as the president of the International Society for Environmental Epidemiology -- the largest international professional society in this field; he also was appointed to the NIOSH Task Force for the Occupational Safety and Health Workforce Assessment Project. Dr. Peter Schnall served as chair of the Committee on Work and Cardiovascular Disease of the International Commission on Occupational Health. Appointed by the governor, Dr. Ulrike Luderer served as the chair of the California State Environmental Contaminant Biomonitoring Program Scientific Guidance Panel. Dr. Leslie Israel was elected as a board member of the Western Occupational and Environmental Medicine (WOEMA) and is chair of the organizing committee for the 2010 Western Occupational Health Conference. Dr. Israel also was selected as the chair of the national occupational medicine residency directors group.

*Occupational Nursing:* The Southern California ERC Occupational and Environmental Health Nursing (OEHN) program at UCLA is the only Masters level degree granting occupational health nursing specialty program in Southern California. Our graduates have a unique perspective framed within the interdisciplinary academic structure of the NIOSH ERC. Training activities include didactic and clinical practicum rotations that culminate in a Masters of Science in Nursing (MSN) within two specialty tracks: OEHN Administration or OEHN Adult Nurse Practitioner. Fifteen OEHN students received NIOSH training grant support during the 2009 – 2010 academic year; eight trainees graduated in June 2010.

The OEHN program participated in a new diversity recruitment effort by the UCLA School of Nursing that more than tripled fall 2010 OEHN applicants from underrepresented groups. Second, the OEHN program continued laying a foundation for a PhD in OEHN within the SCERC by enrolling a third PhD student while two continuing students successfully passed their written qualifying examinations and began dissertation research in the area of workplace health and safety. Third, in Spring of 2010, the SCERC in collaboration with the UCLA Center for Occupational and Environmental Health hosted a meeting for directors of occupational health nursing training programs from across the nation and key NIOSH officials to discuss current status and future directions for the occupational health nursing profession that is grappling with a shortage of nurses prepared to meet worker health and safety needs for our nation compounded by a shortage of doctorally prepared faculty to teach the specialty academic training programs. At this venue comments were accepted on the report of the NIOSH OHN Task Force that had been convened in 2008 and Chaired by Julia Faucett.

*TRT:* The Targeted Research Training (TRT) Program is a joint program of the UCLA and UC Irvine campuses. The Program uses several strategies to enhance research training and awareness of NORA, including (a) provide technical research support within the SCERC; (b) coordinate interdisciplinary research; (c) train graduate students who do projects with a NORA focus; and (d) organize and teach outreach programs related to NORA research. During the budget period, the TRT program provided technical support for NORA research training for doctoral students in the Industrial Hygiene core program through the purchase of supplies and laboratory analyses that are being used for NORA research training. The program continued to provide support for NORA-related research by industrial hygiene doctoral students. Doctoral students received support during the reporting period for the following projects: Developing a Thermophoretic Precipitator; Design and Evaluate the Performance of a Versatile Electrospray Aerosol Generator for Nanomaterial Research; and Intervention Programs for Occupationally-related Low Back Pain.

The TRT program has provided research training in ERC courses. A focus of the training has been the SCERC initiative in work organization and workplace psychosocial factors. The SCERC initiative on WO&PS has conducted research projects that have provided an opportunity for SCERC trainees to participate in field research. An example of outreach meetings includes presentations at the California Work and Health Study Group to present NORA-related research on work organization and psychosocial factors.

Continuing Education: The SCERC became an approved CME provider through the California Medical Association/Institute of Medical Quality. We conducted a 2-day symposium on the new Cal/OSHA Aerosol Transmissible Disease (ATD) Standard, attended by 105 of which approximately one-third were nurses, one-third Cal/OSHA employees, and one-third other health and safety professionals. The program added a new webinar, Ethics for Health and Safety Professionals, designed to meet the needs of industrial hygienists, whose new requirements for continuing certification require a 2-hour ethics course.

Highlights include:

- Submission of a small conference grant to NIOSH proposing a symposium on East-West and Occupational Medicine.
- Reactivation of the partnership with OSHA Training Institute Education Center at UC San Diego resulting in joint sponsorship of 19 OSHA and Cal/OSHA courses in 2010 and 20 in 2011.
- In 2009/10 we trained 1,200 participants -- industrial hygiene (389), occupational medicine (247), occupational health nursing (112), occupational safety (259), hazardous substances (90) and other disciplines (103). Increased use of webinars enhanced our ability to serve the Region IX, and beyond.

Outreach: Faculty and trainees of UC Irvine affiliated with UCLA and the Targeted Research Training program on work organization made several presentations and posters on emerging research at the international conference on Work Organization and Psychosocial Stress (WOPS) of the International Commission on Occupational Health, which was held during June 2010 in Amsterdam. Dr. Peter Schnall was invited to give the conference keynote presentation on "Globalization, Work and Health". Dr. BongKyoo Choi received an award for the "Best Abstract" for the overall conference. This conference followed the release last year of a book edited by Dr. Schnall entitled, "Unhealthy Work – Causes, Consequences, Cures" which recently received an award as the "Best Labor book of 2009" by the New Unionism Network. The international conference participants generally acknowledged the SCERC-affiliated work organization program as the top "work organization and health" program in the United States.

The OEHN Program collaborated with the Northern California ERC and the American Association of Occupational Health Nurses (AAOHN) to offer a two-day pre-conference session for nurse practitioners preliminary to the annual AAOHN meeting held in Anaheim this spring; one NIOSH doctoral student and two alumni presented receiving outstanding evaluations. In addition, the SCERC's OEHN program hosted a meeting of nursing directors of NIOSH funded occupational health nursing programs from across the nation at which current issues impacting the future of occupational health and educational preparation for occupational health nursing were discussed between the educators and guests from NIOSH.

We began the first of three years of a grant from The California Wellness Foundation (TCWF) to continue our injury and illness prevention courses for hotel housekeepers, janitors and kitchen workers. Highlights include:

- Conducted injury and illness prevention for low wage service workers in English (82) and Spanish (59).
- Established a new working relationship with the California Society of Safety and Security Professionals
- Staffed an outreach table at a conference put on by the UCLA Collaborative Centers for Integrative Medicine.
- Contracted to become a sponsor of and provider of continuing education for the International Forum on Disability Management 2010, to be attended by approximately 500.

We actively sought Region IX impact. Collaborations with a variety of organizations throughout the region have led to grant proposals for projects including miner safety training, hazardous substance training for first responders in rural communities, and tribal safety training.

Pilot Projects: Our Pilot/Small Project Program attracted ten strong applications of which four were funded. Since inception in 1999, our PSP Program has funded 45 project covering more than 21 NORA areas.

#### **09-10 Academic Program data**

Program	IH/(HSAT minor)	OMR	OEHN
Graduates	3(2)	3	8
Trainees	14(3)	6	15

#### **09-10 CE Program data**

Total # of Courses	77
Total Trainees	1,200